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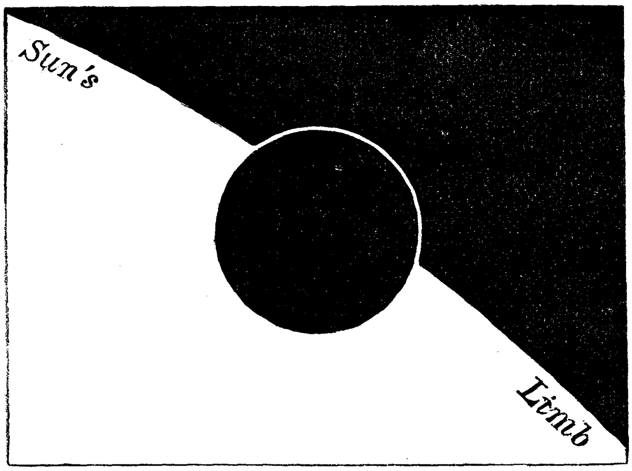
about 30, which gave more perfect idea of the planet's comparative nearness and of its suspension in space than did the higher powers.

The planet's disk was easily seen by the unassisted eye, and indeed without any protection by some young retinas when the Sun was near setting.

The spectroscope observations were made by the Rev. George Horner, and the remainder by the writer of these notes.

Note on the Transit of Venus, 1882, *Dec.* 6. By Charles Leeson Prince.

Since my communication to the Society of Dec. 7, respecting the Transit of *Venus*, I have had the following engraving made of the appearance of the planet's atmosphere shortly before internal contact, which, I trust, will be interesting to those who were not fortunate enough to witness the phenomenon.



The Observatory, Crowborough:
1883, *Feb.* 5.

Notes on the Transit of Venus, 1882, *December* 6. By the Rev. Fred. Howlett.

The drawing of the late Transit—of which I obtained a few brief glimpses between the clouds—as seen projected on a screen in a darkened chamber, is of no really scientific value, but is interesting as showing how very conspicuous the phenomenon appears when observed by the method just mentioned.

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Aperture used was 3 inches; focal length 45 inches; power 80.

I first caught a view of the planet at about $2^h\ 5^m$, when it had advanced some $12''$ of arc over the Sun's limb. At the moment of first internal contact the Sun was completely clouded, but I obtained a good view of the planet when its following limb at $2^h\ 25^m$ was about $10''$ from that of the Sun. At this time *Venus* appeared slightly elliptical in a polar direction, and the "ligament" manifested itself at the time as a dusky, ill-defined, tremulous band intervening between the planet and the Sun's limb. The disk of *Venus* appeared of a very dark Indian-ink brown, and measured upwards of one inch in diameter on the screen. I did not observe any indications of an atmosphere, nor anything of the nature of a central spot of light.

From $2^h\ 26^m$ the Sun was overclouded for the rest of the afternoon.

1882, *Dec.* 8.

Note on Professor Newcomb's Remarks on the Windsor Observations of the Transit of Venus in 1874. By John Tebbutt.

Professor Newcomb, in his remarks (*R. A. S. Notices* for April 1882) on the Instructions of the Paris International Conference for observing the Transit of *Venus* in 1882 states, "that I failed to observe either contact in 1874 through waiting at ingress until almost every vestige of the ligament had disappeared, and at egress by endeavouring to catch its first formation." It is quite possible that Professor Newcomb's statements may to a certain extent be correct, but it is at all events certain that the errors of observation were not great, as the phenomena of the shadowy ligament extended over a very small interval of time. That the errors could not be so great as Professor Newcomb's remarks seem to suggest is conclusively shown by the general result arrived at by Lieut.-Colonel Tupman, in his paper on the Solar Parallax, in the *R. A. S. Notices* for June 1878. The residuals for the Windsor observations of internal contact at ingress and egress, after the rejection of certain observations from other stations, are $12^{s}{\cdot}1$ and $0^{s}{\cdot}7$ too late respectively. I do not think, however, that a perfectly satisfactory determination of the value of the Windsor observations can be arrived at till more accurate values are adopted for the longitudes of some of the stations. In the case of Sydney and Windsor I think there can be no doubt that the longitude requires a correction of about four and five seconds of time respectively. The value adopted for Windsor is that contained in the *Nautical Almanac*, which depends on the old and, I believe, erroneous longitude of the Sydney Observatory, combined with the telegraphic difference between the two stations. From a casual consideration of the question it seems probable that had the more correct longitude of Windsor (see *R. A. S.*

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